Amendments to the Claims:

Claims 1-9 (Cancelled).

10. (Currently Amended) A compound motor comprising:

a plurality of motors, each motor including:

a stator having a stator winding, said stator winding of each of said motors having a different number of poles than a stator winding of each other of said motors; and

a rotor rotatably supported on said stator, said motors being arranged such that said rotor of each of said motors rotates about a common axis of rotation, said motors being arranged in a line along said common axis of rotation sequentially based on the number of poles of said stator winding of each of said motors such that said motor including said stator winding having the smallest number of poles is located at a first end of said line and such that said motor including said stator winding having the largest number of poles is located at a second end of said line opposite said first end, and said motors being connected in parallel to a common power circuit operable to raise a rotational speed of each of said motors from an initial rotational speed of zero to a respective rated rotational speed, wherein the rated rotational speed of each of said motors is based on the number of poles and is different than the rated rotational speed of a remainder of said motors;

a plurality of rotating members arranged adjacent to each other in an axial direction along said common axis of rotation so as to share said common axis of rotation, each of said rotating members being attached to a corresponding rotor of one of said motors; and

bearings rotatably supporting said rotating members so that said rotating members rotate independently.

Claims 11-13 (Cancelled).

14. (Previously Presented) The compound motor of claim 10, wherein said plurality of motors includes a first motor having a two-pole stator winding, a third motor having a twelve-

pole stator winding, and a second motor having a six-pole stator winding and being arranged between said first motor and said third motor.

15. (Currently Amended) A vacuum pump comprising:

a casing having an inlet port and an exhaust port;

a plurality of motors arranged in said casing and connected to a common power circuit, each motor including:

a stator having a stator winding, said stator winding of each of said motors having a different number of poles than a stator winding of each other of said motors; and

a rotor rotatably supported on said stator, said motors being arranged such that said rotor of each of said motors rotates about a common axis of rotation, said common power circuit being operable to raise a rotational speed of each of said motors from an initial rotational speed of zero to a respective rated rotational speed, wherein the rated rotational speed of each of said motors is based on the number of poles and is different than the rated rotational speed of a remainder of said motors;

a plurality of rotating members arranged within said casing and adjacent to each other in an axial direction along said common axis of rotation so as to share said common axis of rotation, each of said rotating members being attached to a corresponding rotor of one of said motors; and

a plurality of bearings rotatably supporting said rotating members so that said rotating members rotate independently.

16. (Previously Presented) The vacuum pump of claim 15, wherein each of said rotating members has a set of blades to be rotated by a corresponding one of said motors.

Claim 17 (Cancelled).

18. (Currently Amended) The vacuum pump of claim 15, wherein said motors are connected in parallel to ~~a~~ said common power circuit.

19. (Previously Presented) The vacuum pump of claim 15, wherein said plurality of motors are arranged in a line along said common axis of rotation sequentially based on the number of poles of said stator winding of each of said motors such that said motor including said stator winding having the smallest number of poles is located at a first end of said line closest to said inlet port of said casing and such that said motor including said stator winding having the largest number of poles is located at a second end of said line opposite said first end and closest to said exhaust port.

20. (Previously Presented) The vacuum pump of claim 15, wherein said vacuum pump comprises a turbo-molecular pump.

21. (Previously Presented) The vacuum pump of claim 15, wherein said plurality of motors includes a first motor having a two-pole stator winding and located closest to said inlet port of said casing, a third motor having a twelve-pole stator winding and located closest to said exhaust port of said casing, and a second motor having a six-pole stator winding and being arranged between said first motor and said third motor.

22. (Currently Amended) A method of evacuating a vessel, comprising:

arranging a plurality of motors within a casing such that the motors rotate about a common axis of rotation, each motor including a stator having a stator winding, the stator winding of each of the motors having a different number of poles than a stator winding of each other of the motors;

arranging a plurality of rotating members within the casing and adjacent to each other in an axial direction along the common axis of rotation so as share the common axis of rotation and

so that the rotating members rotate independently, each of the rotating members being attached to a corresponding one of the motors;

connecting the motors in parallel to a common power circuit operable to supply an exciting current to the stator winding of each of the motors;

connecting an inlet port of the casing to the vessel to be evacuated; and

supplying an exciting current having a prescribed frequency to the motors simultaneously via the common power circuit so as to operate the motors at different speeds based on the number of poles of the stator winding of each of the motors, whereby the common power circuit raises a rotational speed of each of the motors from an initial rotational speed of zero to a respective rated rotational speed.

23. (Previously Presented) The method of claim 22, wherein said arranging of the motors comprises arranging the motors so that a motor including a stator winding having the largest number of poles is located closest to an exhaust port of the casing so that the motor located closest to the exhaust port of the casing has the slowest rotational speed.

24. (Previously Presented) The method of claim 22, wherein said supplying of the exciting current having the prescribed frequency comprises supplying an exciting current having a frequency of 500 Hz to the motors simultaneously.